ENERGY POVERTY, HOUSING and **DAILY LIFE:** A SUMMARY REPORT

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Introduction

In Canada, one in every five households is considered to be in energy poverty (Riva et al., 2021), meaning they are spending a considerable portion of their income on energy bills or are unable to afford the energy required to meet their needs, maintain a healthy indoor living environment, and to live with dignity (Bouzarovski & Petrova, 2015). Different studies have shown that experiencing energy poverty can make it significantly harder for households to balance their finances and afford other essential needs, for example, food, transportation, and healthcare (Martiskainen et al., 2023; Snell et al., 2018) as well as lead to, or worsen, different health and well-being issues (O'Sullivan, 2019). However, in Canada, very little is known on the ways energy poverty impacts the daily lives and the health and well-being of individuals and households. Given the current strain in the housing market, extreme weather events experienced in the country, and the varying cost and accessibility of energy from province to province, it is important to better understand how Canadians are living with, experiencing, and coping with energy poverty.

In 2022, a team of researchers from McGill University collaborated with the municipality of Bridgewater, Nova Scotia, on a survey to measure the extent of energy poverty in the town. Results revealed that two in five survey participants lived in a household facing energy poverty . Findings further showed that housing and socioeconomic conditions influence energy poverty which, in turn, influenced the health and well-being of household members. The full results from this survey are available in the report **Energy Needs, Housing, and Well-Being in the Town of Bridgewater.**

As a follow-up to this survey, it became obvious that we needed to better understand what it means to be facing energy poverty and how it impacts daily life. To do so, we conducted interviews with people who were experiencing energy poverty in Bridgewater and the surrounding area. This report offers a summary of what we heard from 39 residents who shared their personal experiences with us.

¹Many definitions exist to describe health and well-being. Simply put, we can think of health being "physical, mental, and social well-being" (World Health Organization, 2021) and well-being being a positive state experienced by individuals and communities that encompasses quality of life and having a sense of meaning and purpose, as described by the World Health Organization (2021).

²This proportion is measured based on the 2M indicator of energy poverty, which considers a household in energy poverty if their share of household income to energy expenditures is more than twice the national share. In Canada, the national median share of household income to energy expenditures is 3%, so if a household spends more than 6% of their income on energy, they are in energy poverty (Charlier & Legendre, 2021)

Methods

Interviews were conducted in the context of **BridgES** (Bridgewater Energy Security), a larger study investigating the energy needs, housing situation, and health and well-being of residents in Bridgewater as the municipality implements **Energize Bridgewater**. BridgES is a collaboration between researchers from McGill University and the Town of Bridgewater. The study received ethics approval from McGill Research Ethics Board (REB File #: 22-09-062).

Data collection

To collect data for this study, we conducted indepth interviews with individuals and households in and around Bridgewater. In-depth interviews are conversations where the researcher asks a set of predetermined questions to a participant to better understand their experience and thoughts on a specific topic (Thorogood & Green, 2018), here energy poverty. During interviews, we asked participants a set of questions related to their: housing situation (and, when applicable, experiences of homelessness); energy use and energy costs; ability to stay warm and cool in their homes; experiences of extreme weather events; transportation needs; health and well-being; and access to support services. The interview guide was developed in collaboration with staff from the Town of Bridgewater and the South Shores Open Doors Association (SSODA). The interview guide was reviewed by colleagues with complimentary expertise on lived experience, energy poverty, and homelessness, who offered insights on the wording and sequencing of questions.

To conduct these interviews, a member of the research team travelled to Bridgewater for two weeks in September 2023. Interviews were conducted in person (either at a local community centre or in the participant's home) or over the phone depending on the preference and ability of participants. Most interviews were done with a single participant, though four interviews were conducted with two or three participants present. In total, 32 interviews with 39 individuals were realised. We recruited participants for these interviews using different methods: we followed-up with participants from the 2022 community-based survey (n=9) who agreed to be contacted to further discuss energy hardship; some participants were referred to the study from a local housing support association (n=12), from a local community organisation (n=13), and from other participants (n=5). Interviews lasted between 30 and 120 minutes. Participants received a gift card to a local grocery store or gas station as compensation for their time. Interviews were recorded using a digital recording device; no video was recorded. Recordings were then transcribed verbatim for analysis.

We employed thematic analysis to synthesize the data. Thematic analysis is a common form of qualitative data analysis that identifies common topics and elements discussed by participants, making links across interviews (Thorogood & Green, 2018). Transcripts from interviews were transcribed and then read and re-read. From there, a list of codes emerged. Codes are labels assigned to specific sections of interviews, such as "cold in the home," "stress," and "disconnections." Each interview was coded using the same list of codes, which evolved throughout the process (i.e., if new codes emerged, they were added to the list and revised in the previously coded interview transcripts). After having coded each interview transcript, the research team met to discuss the themes that emerged from the analysis. Themes are larger topics that encompass different codes, such as "housing conditions," "thermal discomfort," and "health and well-being." We then read through the coded interview transcripts again to identify where themes emerged similarly and differently throughout the data. These themes are presented in the following section.

Results

This section presents the results of the in-depth interviews to better understand what it means to be facing energy poverty and how it impacts daily life. We begin by describing the sample of participants. In presenting the major themes uncovered during interviews, it was hard to find a clear distinction between energy poverty and housing. In many ways, housing and energy poverty are closely intertwined, namely through the energy efficiency of a home, the impacts of energy poverty on housing conditions, and the need to balance both energy and housing costs. Hence, both are presented together throughout this report.

The next section is organised into three broader categories: physical needs, financial challenges, and finding support from social networks, local organisations and the government to help them deal with energy poverty and housing insecurity. This organization was inspired by another study which analysed the impacts of energy poverty on health (Hernández, 2016). Within each of these sections, we present the ways households tried to cope with energy poverty and challenging housing situations, as well as the ways they perceived their health being impacted by energy poverty. A simplified diagram of this organisation is presented in Figure 1.

We start by first exploring the physical needs and contexts associated with energy poverty and housing, discussing energy services and needs, housing conditions, energy systems, energy efficiency, and thermal (dis)comfort. Second, the themes related to financial challenges are summarized, looking at housing and energy costs, and the consequences of unaffordability of energy and housing. Third, we discuss the ways households found support to deal with energy poverty and housing, and how they felt they could be better supported through experiences of energy poverty. Finally, we offer a brief overview of participants' hopes and aspirations in relation to energy and housing security.

Figure 1.

Organisation of major themes as they relate to energy poverty and housing.



Description of the participants to the study

Overall, 39 participants were interviewed, representing a diversity of experiences related to energy poverty and housing insecurity. Figure 2 offers a descriptive summary of participants with the following categories: sociodemographic characteristics, housing and household composition, and energy-related information. For more detailed information, see tables in Appendix 1 and 2 (at the end of the report). To protect the identity of participants and ensure confidentiality, all participants have been attributed a pseudonym. Throughout the report they are referred to as such. Identifiable information is removed from quotes.

Overall, our sample included 10 homeowners, 20 renters, and 9 individuals that were precariously housed. Of those precariously housed, five were not living in a dwelling at the time of the interview, one had recently received an eviction notice, and three were living with their families as a transitional step. For those living with family, we have chosen to include them in the precariously housed tenure category given the lack of formal agreement or contract for housing. Among the different household compositions represented, 15 participants lived in households with children (below 18 years) and 12 lived alone, the others living with partners or adult family. Based on what participants disclosed, we averaged the cost of heating and cooling in the winter and summer; for six participants, these costs were included in their rent.



Figure 2.

Descriptive summary of sociodemographic characteristics of sample.



Physical needs and context

This section summarizes our findings on the physical needs of participants as it relates to energy and housing, and how context influences participants' experiences of thermal comfort in their homes. We describe the energy systems in the homes of participants and the extent to which they fulfil their needs; the housing conditions and energy efficiency of dwellings; and experiences of thermal discomfort.

Energy needs, energy systems, and housing conditions

During interviews, participants told us about how they needed, used, and valued energy services in their daily lives. When asked what the most important functions of energy were in the home, participants most frequently mentioned the use of energy to heat and cool their homes, keep the lights on, heat water, cook, and do laundry. Although some participants focused on certain functions, others noted that energy was essential for them to undertake most daily activities.

"Heat, that would be really important. And then I do a lot of cooking, baking, that kind of thing. And then... Oh goodness, probably the laundry... you can't live without electricity." (Eve, homeowner, age not provided)

Some participants specified that they required reliable access to energy for their health. Indeed, during one interview, one of the two participating household members was reliant on an oxygen machine to ensure their breathing. Being able to power the device was the most important function of energy for their household. "Now she [my mother] is on 24-hour oxygen, so that means its [the oxygen machine] is going 24/7... She needs it." (Gwen, renter, 35-64 years)

As will be explored later in this report, a participants' well-being is impacted when they are unable to use as much energy as they need, either due to affordability or accessibility issues.

Housing conditions refer to the physical state of a dwelling, including the energy system of the home. As noted, a central and essential function of energy for householders was the ability to heat and cool their homes. As such, when discussing their housing, participants also described the energy system present in their homes. The predominant heating sources for homeowners were electric and heating oil. Some also supplemented the main heating system in their homes with fireplaces, which were described as a warmer, cosier source of heat. Most renters' homes used electric systems. Only a few participants overall had air conditioning or other cooling systems such as heat pumps.

It was made clear that poor housing conditions were an issue for many participants, with several living in dwellings in need of major repairs. Housing in need of major repairs have non-functional plumbing or energy systems or require structural repairs to walls, floors or ceilings (CMHC, 2022). From the interviews we conducted, we heard of participants in dwellings with pest infestations, large patches of mould, and holes in walls. Participants discussed the challenges they experienced regarding energy poverty as a result of their housing being energy inefficient, often meaning difficulty keeping warm. Indeed, experiencing energy poverty is not solely related to the cost of energy, but also the ability to access and use energy reliably and efficiently.

"It doesn't matter how much we'd have to spend, if we could make the house warm, we'd make it warm. I'd make it work.

But we can't." (Dominique, renter, 35-64 years)

"It's an old place. They redid the windows, but there is one door that you can see the sunlight shining through. So obviously there's a gap or an opening..." (Julia, renter, 19-34 years)

"Our kitchen is not insulated like the rest of the house is. And our bedroom is off of our kitchen. So that side of the house is always way colder than the rest of the house." (Avalon, homeowner, 19-34 years)

"It doesn't matter how much we'd have to spend, if we could make the house warm, we'd make it warm. I'd make it work. But we can't." (Dominique, renter, 35-64 years)

More than an inconvenience, poor housing conditions pose serious health and well-being consequences. Indeed, participants were aware of the impacts their home could be having on their health and well-being. Namely, both mould and dust were said to contribute to the development of asthma and allergies among household members, especially children. Such housing conditions was cause for concern for participants.

"And it's not just the smell. If you're smelling it, you're breathing in the spores. And we have the windows closed because none of them open, they're all broken. And then the heat pump is just circulating it. We're home all the time, that's not healthy." (Dominique, renter, 35-64 years)

"This is a really old house, so it's kind of not good for health..." (Elizabeth, renter, 65+ years)

Some participants, especially those who owned their dwellings, had invested or found support to make energy efficient improvements to their home, such as new appliances, heat pumps, and insulation. These choices were described as both financially advantageous and more environmentally friendly. Charlotte, for example, explained being satisfied with their choice to buy a heat pump saying, *"they would pay for themselves... and they have."* Nevertheless, an important financial barrier to home energy retrofits and improvements was expressed, meaning energy efficient improvements were not necessarily accessible to everyone.

"The only problem we kind of have with the house is heating it, like the oil heating is very expensive, and we can't afford to put in the heat pumps." (Sophie, homeowner, 19-34 years) Beyond the financial barrier, renters appeared to be more limited in their options to improve the energy efficiency and conditions of their homes. Often, the conditions and energy efficiency of a rental unit was dependant on the choices of the landlord. Throughout interviews, participants, especially renters, described feeling forced to stay in a home in poor conditions, despite the potential negative impacts on their health, because of a lack of alternative housing options that were suitable and affordable. During separate interviews, two mothers stated *"we're stuck"* (Dominique, renter, 35-64 years) and *"if we had the chance, we would move out"* (Gaby, renter, 35-64 years).

Thermal discomfort

Across these experiences of energy inefficient homes and energy systems, participants told us about their experiences of thermal discomfort. Thermal discomfort can be described as the subjective dissatisfaction with the ambient temperature of one's environment (Ormandy & Ezratty, 2012). While the World Health Organisation recommends home be kept between 18 and 22 degrees Celsius (World Health Organization, 2018), thermal comfort is subjective, and general definitions do not always reflect people's preferences or their experience of the temperature in the home. Even within homes, participants explained how temperature preferences varied amongst household members, leading to compromises. Emilia recounted how her husband, who has some underlying health issues and poor circulation, will move around the home with a portable heater in the winter to keep himself warmer, while she is more tolerant of the set ambient temperature.

Extreme weather events and climate change were mentioned as exacerbating thermal discomfort, especially during heat waves, power outages caused by storms, and cold shocks. Throughout most interviews, householders described feeling like their home was often not comfortable for them or other family members because it became too cold or too hot. In the winter, experiences of thermal discomfort led householders to state:

"I was more so worried about the building. Because it was so cold and so I was afraid that the pipes were gonna burst in the basement..." (Lea, precariously housed, 19-35 years)

"Upstairs is usually so cold that it's just like living in a freezer. So that's worrisome." (Gwen, renter, 35-64 years)

"[*I just want a place where*] you don't feel like you're freezing, which in my place, I do [freeze]." (Lily, renter, 35-64 years)

In situations where their homes were too cold, participants described resorting to coping strategies in the hopes of increasing warmth. Lea, a mother of young children, told us how she tries to make sure her kids were warm enough in the home, saying *"there were times where we bundled up, or all slept in the same bed."* Similarly, participants described sitting close to heating sources, wearing winter coats indoors, turning the oven on, and placing cardboard or blankets on the floor and windows. Other participants told us they sometimes leave the dwelling altogether to find a warm place to stay, either at local community centers, relatives' homes, or going for a drive.

Beyond simply making participants less comfortable in their homes, being unable to keep their dwellings at adequate temperature can lead to negative health and well-being outcomes. Some participants explained that being too cold in their dwellings worsened joint and muscular pain, especially for participants with fibromyalgia, arthritis, and other chronic illnesses, and that it interrupted sleep and made it hard to breathe. Other participants also experienced negative psychological symptoms associated with the feelings of cold. When asked how feeling cold in the home made him feel, Oliver explained that he sometimes felt depressed and wondered *"What's the point really? I just don't feel like myself."* Looking at experiences of thermal discomfort in the summer, participants felt like their homes were often extremely hot and humid. Darla, who lives in a mobile home, described how the home both traps heat in the summer and rapidly loses heat in the winter, making it uncomfortable most of the year. Regarding summer, she explains *"it's like a tin can, it gets hot."* In some cases, discomfort in the summer for participants was a question of not being accustomed to the increasingly hot temperatures.

"It was horrible. Yeah, it was so humid. It's so hot. I mean, I'm a Nova Scotia woman, not South Carolina...I felt that it was sickly unhealthy." (Chloe, renter, 65+ years)

To cope with uncomfortably hot temperatures in the home, participants described keeping their curtains closed most of the day, using fans and air conditioning (though scarcely given the cost), taking cold showers, going for a swim, and putting towels in the freezer for as an additional source of cooling. Again, participants named the places they went outside their homes to in the hopes of finding respite from the heat, including the mall, the pool, and community centres.

When it came to health impacts associated with hot temperatures, participants explained having a hard time sleeping, feeling groggy and cathartic, having nausea, sweating excessively, and struggling to breathe. For Dominique, whose spouse has multiple sclerosis (MS), thermal discomfort in the summer was a serious issue, explaining that *"with MS, you have instant heat intolerance. [We] can't live without an air conditioning... He gets speech paralysis, and his legs stop working when he's overheated."*

Considering thermal discomfort more generally, feelings of shame were expressed by some participants who felt chagrined by their inability to ensure thermal comfort in the home. Sophie, a mother of a young child, explained how it made her feel, saying *"it feels like we can't fully provide for our kid and give him the best home. It's too warm and cold both times of year. So that part sucks and makes you feel a little bit inadequate."*

Overall, the physical context related to household's housing conditions, energy efficiency, and energy needs impact their behaviours and health. However, the cost of energy and housing represents a barrier for many in finding solutions to these issues, which we will explore next.

Box 1.

Negative health impacts mentioned in relation to energy poverty

- Joint pain due to cold (associated with rheumatoid diseases or previous physical injury)
- Back problems (aches, herniated disc, etc.)
- Multiple scerosis-related paralysis and slurred speech due to heat
- Asthma
- Respiratory diseases, including COPD
- Difficulty breathing because of the heat or cold
- Allergies
- Shivering indoors
- Trouble sleeping in the heat and cold
- Heat rashes
- Symptoms of depression
- Stress and anxiety

"And it's not just the smell. If you're smelling it, you're breathing in the spores. And we have the windows closed because none of them open, they're all broken. And then the heat pump is just circulating it. We're home all the time, that's not

healthy." (Dominique, renter, 35-64 years)

Financial challenges

This section introduces the financial challenges and burdens reported by participants in affording their energy and housing expenses. It explores the unaffordability of energy and housing experienced by some, the associated feelings of stress and efforts to manage finances, the extreme consequences related to energy and housing insecurity, and the impacts these have on health and well-being.

Energy costs

Throughout most interviews, participants spoke about the cost of energy. Most participants mentioned that they find their energy bills expensive and sometimes completely unaffordable, noting a noticeable increase in the past few years.

"Well, I find my power bill is expensive." (Avalon, homeowner, 19-34 years)

"I'm dreading just to find out [how much the next bill will be]." (Lily, renter, 35-64 years)

When asked how often they thought about their energy bills, participants responded with *"everyday"* (Ivy, renter, 19-34 years), *"we're thinking about it constantly"* (Stella, precariously housed, 19-34 years), and *"every day I would say, it's a nonstop issue"* (Gaby, renter, 35-64 years). Participants described feeling burdened by their energy bills and felt like they were unable to afford to meet their energy needs.

As Bridgewater experiences both hot temperatures in the summer and below-zero temperatures during the winter, energy needs and expenditures vary greatly across seasons. When discussing the cost of energy, participants mentioned having bi-monthly energy bills (i.e., once every other month) in the winter over \$500. Participants noted that utility bills in the winter were often double the cost of summer bills. Additionally, householders explained how they were forced to make trade-offs with other areas of their lives to balance finances, such as food, transportation, healthcare, and social outings. As one older participant who lives on a fixed income and receives a disability benefit explained: "I have to sometimes... take from my funeral expense during the coldest parts of the year, you know, late January, December, January, February. Those are our coldest months and I gotta take money away from my funeral expense to pay to heat." (Noah, renter, 65+ years)

Nonetheless, as summers become increasingly warm and the frequency and intensity of heatwaves intensifies, participants noticed that the cost of keeping their dwelling cool was also increasing.

"Especially with the summer we've just had... Our energy prices were much higher this summer than other summers because we've had a much warmer summer." (Emilia, homeowner, 65+ years)

Some householders facing high energy bills accumulated arrears (i.e., debts) to Nova Scotia Power, the provincial energy provider. Some of these debts represented hundreds of dollars, some reaching over a thousand. These sometimes-overwhelming debts led some households to receive disconnection notices from utility companies, an event described as a very stressful and disconcerting experience.

"Nobody wants to get a letter in the mail saying 'pay up or we're gonna cut you off.' And nobody wants to roll into the cold months thinking are, 'Are they gonna cut me off? Am I gonna wake up tomorrow and have no power?'" (Avalon, homeowner, 19-34 years)

From our sample, seven participants had experienced disconnections. While recounting their experiences of debts and disconnections, they mentioned being angry, stressed, discouraged, and disappointed. One participant recalls a time she was disconnected for two weeks. Describing the experience as *"awful,"* she says:

"I woke up one morning and was like we have no power... [The notice] got slipped under the rug for a minute and next thing you know, I woke up and my son's like 'Mommy, we have no power."" (Ivy, renter, 19-34 years) Some participants had been able to make agreements with Nova Scotia Power and be placed on a budget plan. Such plans meant households were slowly able to pay of their debts while also maintaining affordable, predictable monthly energy costs. Yet, some participants on budget plans mentioned how bills to account for discrepancies in predictive vs actual energy use at the end of each was a cause for stress.

Making financial and social trade-offs

The high cost of energy led some participants to be especially aware of their budgets and the need to make financial trade-offs between other essentials, such as food, transportation, and social activities, as explained below.

Some participants described the challenges they had in affording both energy and food. Many interviewees described having to restrict energy use or food to afford the other.

"We just set money aside. And I'm a senior [on a fixed income] Sometimes you just go a day or two without eating." (Noah, renter, 65+ years)

Although there are multiple grocery stores that carry fresh produce in Bridgewater, many participants considered their grocery bill to be unaffordable and noticed how food prices increased in the last few years. Many participants recounted having to choose between buying an adequate quantity of food to feed themselves and their households and food quality. In certain cases, participants even noticed that this had an impact on their health.

"And eat healthy? You can't eat healthy. Not anymore." (Sophie, homeowner, 19-34 years)

"Like it's just crazy how much groceries are [compared to] what they used to be. \$350 every two weeks has now gone to \$675. [...] it's getting to be the situation where I can't go for my grapes every day and have my fruit. Which you know, you want to eat healthy." (Nora, renter, 35-64 years)

Further, many participants reported going to multiple grocery stores and using flyers to save money and find the best deals.

"[I shop for groceries] wherever I can get it cheaper. No Frills, Giant Tiger, Sobeys, Superstore, wherever. I look for the flyers." (Rose, renter, 35-64 years)

"When I used to get the flyers, we used to do that. We used to go to two different grocery stores." (Alice, renter, age not provided)

Participants also discussed how being able to pay for both domestic and transport-related energy expenses could be difficult. Those who relied on their car to get around mentioned reducing the amounts of trips they took to afford payments elsewhere. In some cases, this restriction was related to leisure, with one couple sacrificing their drives around the area to save money. Some participants preferred the bus system as it was generally more affordable, and certain participants received support from local organisations to afford bus fares.

Participants further explained sacrifices they made around social activities and educational opportunities in the hopes of being able to afford their home energy costs.

"I don't have a social life anymore. I really don't. And I really wouldn't be able to afford it either, anyway, when stuff started going up." (Gwen, renter, 35-64 years)

Likewise, when asked whether budgeting for housing and energy costs had affected her social and educational opportunities, Sophie explained:

"I've been wanting to go back to school and get my master's degree, but I just know we could not afford to live off the student loan ... So it's kind of kind of on the back burner for a couple of years. But if I got master's degree I would make a lot more money which would help, and I'd have a better work life balance instead of having to work the odd weekend [like I have to now]." (Sophie, homeowner, 19-34 years)

"I don't have a social life anymore. I really don't. And I really wouldn't be able to afford it either, anyway, when stuff started going up." (Gwen, renter, 35-64 years)

Box 2

List of coping strategies used participants to deal with energy poverty

To save energy:

- Using public and community spaces to charge their devices and access Wi-Fi
- Eating cold or canned foods without access to stoves and other cooking appliances, both temporary (power outages) and chronic (situations of homelessness)
- Lowering the heat to a temperature considered too cold
- Being careful to always turn off lights and other appliances when not in use
- Using a clothesline rather than a dryer
- Using the dryer less frequently
- Using electricity at off-peak hours (e.g., for laundry and cooking)
- Reducing the number of local trips
- Using community center gyms to shower

To increase thermal comfort:

- Leaving if the home gets too warm or too cold and going to the beach, the mall, community centers, and friends' or family's homes
- Opening windows for airflow, even during the winter if heating was too high
- Using fans all day in the summer
- Using generators during power outages
- Using portable heaters
- Using dehumidifiers

To increase energy efficiency:

- Sealing cracks in the home with clothes, blankets, or tape
- Placing plastic over windows during the winter

To manage finances

- Checking energy use frequently (i.e., bills and energy meter)
- Budgeting intensively
- Using coupons for food
- Getting overdraft protection to pay for energy bills (which allows for transactions to occur even if bank account is empty)
- Maxing out credit cards to pay for energy bills
- Asking for loans from friends and family
- Finding additional work and/or sources of income



In addition to the many necessary expenses households have monthly, housing costs were often the most considerable in their budgets. Housing costs were named as a priority in participant's household budgets, while also being noted as a burden and stress for many, as explored next

Housing affordability and availability

Housing affordability refers to a household's ability to pay for housing (e.g., mortgage, rent, property taxes, etc.). In Canada, housing is considered unaffordable if its costs represent more than 30% of a household's income (before taxes and deductions) (CMHC, 2022). Nearly every participant interviewed mentioned the unaffordability of housing in Bridgewater and Nova Scotia more broadly. This sentiment was shared across all tenure types and was often paired with the idea that although housing costs are rising, wages have remained the same.

"[We cannot afford housing anymore]. Not with today's wages. The cost of everything's gone up, but wages have not shifted." (Bennett, precariously housed, 35-64 years)

"...it makes me so mad because it's the only place we can get for our young kids. Rent is sky high. And it's just so frustrating. How is anybody going to get ahead?" (Gaby, renter, 35-64 years)

Amongst the many reasons used to explain this rapid rise in housing costs, participants mentioned inflation, the COVID-19 pandemic, renovictions, and housing speculation. Sophie described how, even though she and her partner both have a stable job with decent wages, they struggle with the cost of housing.

"It's hard... because even [some of the people I help through work say] 'I can't get an apartment, I can't pay for this, I have no money, it's so expensive' and I'm like, I hear you. Me too, we struggle too. It's not just because ...you can't work and stuff. It's us too." (Sophie, homeowner, 19-34 years)

The rising cost of housing and low wages posed a challenge for interviewees, especially those on fixed incomes (e.g., government pension, income assistance), those who worked informally, or those who only had one income for multiperson households. Despite the construction of new apartments buildings in town, participants explained how these new options were largely not within affordable price ranges and were not financially accessible to many. Indeed, market availability does not always denote accessibility. "Some of [the new apartments being built in town] are going for \$2000 and that's nothing included in them. I don't know how many can do it. Not with the price, especially [...] with what they pay for minimum wage... It's just not cutting it... I don't know how people do it." (Joshua, renter, 35-64 years)

"Even a one-bedroom right now is like \$1400 a month. Nothing included. I can't afford that. I'm a single mom, I bring in \$1200 a month..." (Ivy, renter, 19-34 years)

For those hoping to receive low-income housing, wait times were said to be incredibly long, with one participant mentioning waiting over five years for a unit. One participant discussed her search for housing that would meet the needs of her family and her husband who had limited mobility and the challenges in finding a subsidised unit:

"...the only other [subsidized] housing options in the province are for people over 65 [...]. My spouse was like 'I guess I got disabled 30 years too early.' Like there's nothing, they won't even let us go on the list [because the units are not physically accessible for our situation]. [...] It's just hopeless." (Dominique, renter, 35-64 years)

Indeed, housing discrimination was another barrier to housing in Bridgewater for many. Multiple participants mentioned being turned away by landlords for reasons such as having children or pets and having physical accessibility concerns.

Housing security

Households achieve housing security when they are able and willing to stay in their dwelling for the longer term (Swope & Hernandez, 2019). Throughout interviews, we noticed a strong link between energy, housing unaffordability and housing insecurity.

While the experience of housing insecurity varied across tenure types, with renters being more vulnerable, homeowners still felt some of the pressures of unaffordable housing costs and the risks of losing their dwelling. Indeed, for homeowners, paying the mortgages was often seen as a non-negotiable, yet substantial, monthly expense. Still, two participants reported having previously lost their home after not being able to continue paying for their mortgages; both were precariously housed at the time of the interview. Turning to the situation of renters, housing insecurity and evictions were a common worry. Elliott explained how there is *"always threats of getting kicked out and it's just nonsense."* Changes in building ownership was a common pathway towards evictions, where new landlords could drastically increase the cost of rent, making units unaffordable. Ivy explained a time when new landlords had successfully increased the price of units in her building, making it fully unaffordable for her family, forcing her to find a new unit.

Some of the evictions mentioned were described as 'renovictions.' Renovictions occur when landlords undertake a renovation project on the property that requires the vacancy of current tenants, while also leading to the subsequent increase in the cost of rent. Not only did renovictions happen to singular units, but Alice described how her entire building had been evicted for this reason, driving families and older adults into precarious housing circumstances.

"Well, I don't understand how they can get away with that [...]and just tell everybody, 'Sorry, you've got to go find a new home...' Right smack dab in the middle of this crisis. That was only last year, like hello? You can't do that to people. It's not fair... [...] Lots of families, [...]seniors, ... it was so sad." (Alice, renter, age not provided) Participants' experiences also revealed how energy poverty was a barrier out of homelessness. Indeed, arrears prevented participants from securing housing as they were unable to sign a contract with the utility company for their unit, a requirement for many leases. Elliot, who was experiencing homelessness at the time of the interview, explained how his arrears posed a huge barrier to him being able to secure a rental unit, saying:

"Because some places want all that information right up front. They want to know that power will be hooked up, because if the power isn't hooked up and you have a place in the winter, it's going to get mouldy. You have to run heat." (Elliot, precariously housed, 19-34 years)

Similarly, when discussing their hopes for housing, Eleanor and Carter said they would have to put the lease and utilities under Eleanor's name given Carter's arrears to the utility company. One of the solutions mentioned was to find a unit where the cost of energy was included with the rent. However, participants revealed such units were becoming increasingly hard to find, leading to some participants having to make very hard decisions in the hopes of not compromising their ability to secure future housing. For example, when faced with the inability to pay both their rent and their utility bill one month, lvy explained how she and her roommate decided to prioritize paying for utilities at the risk of being evicted with the rationale: "at least if we got evicted, we knew we could get power [in our next place]."

"It's hard... because even [some of the people I help through work say] 'I can't get an apartment, I can't pay for this, I have no money, it's so expensive' and I'm like, I hear you. Me too, we struggle too. It's not just because ...you can't work and stuff.

It's us too." (Sophie, homeowner, 19-34 years)

Finding support

Considering the challenges related to housing and energy experienced by the individuals and households involved in this study, many participants told us about the ways they tried to find support. Some forms of support came from people's own social networks. As mentioned earlier, to cope with thermal discomfort in their homes, many participants told us about leaving their homes to visit friends and family whose home was more comfortable. Additionally, some participants had asked for money from within their social networks, either as a gift or in the form of a loan. Nevertheless, while those with strong social networks felt well connected, many participants mentioned being limited in their ability to ask for help. Described as "taking wood from your own sinking boat to put into another sinking boat" (Jackson, renter, 19-34 years), participants mentioned not asking for financial support from others, knowing that they were also struggling to make ends meet.

Beyond their social networks, some participants also sought support from local community organisations. Many organisations were mentioned recurringly, each supporting households through challenges related to energy, housing, food, employment, and childcare. Local organisations came up often when participants recounted times when they had received financial support when faced with high energy and housing bills, debts, and the risk of being disconnected or evicted. As one participant explained:

"I had to pay \$512 by a certain date or they [Nova Scotia Power] would disconnect it. [...] I paid [a part] of it and then went to a local community organisation and they paid [the rest]." (Isabelle, homeowner, 35-64 years)

As food expenses were felt to be unaffordable for many, participants reported finding support locally in the form of donations, gift cards, and community meals to increase the quantity and quality of the food they could access.

"I try to buy some food when I can [...], and I'll try to eat three [meals a day] if I can, but normally two. But I guess sometimes it's only one. It's two meals if I get to [a local community organisation]." (Oliver, homeowner, 35-64 years) For housing support, the most prominent actor discussed during interviews was the South Shore Open Doors Association (SSODA). From helping people find a home, to maintain housing, manage finances, connect with other resources, and feel heard, SSODA was generally considered to be a key resource in the community.

"SSODA's great. Everyone here is very positive, and they always try to help you." (Elliott, precariously housed, 19-34 years)

"If it wouldn't have been for them, we don't know what we'd have done." (Arthur, renter, 19-34 years)

"I just talked to [a staff member] on the phone and it was just nice to have someone asking the right questions. Like [they] actually seemed to care about the details of why we need a new home..." (Dominique, renter, 35-64 years)

Given the diversity of local organisations in Bridgewater, participants mentioned feeling well supported in the community. Several interviewees mentioned moving to Bridgewater from surrounding towns to have greater access to resources, indicating that Bridgewater served as a service hub.

"There's no help anywhere for the people... So, we come up here to Bridgewater. We get more resources that help up here than anywhere else in Nova Scotia." (Carter, precariously housed, 35-64 years)

However, some participants did express frustrations when discussing their experience with local community organisations. In some cases, where a lot of hope had been placed on community organisations being able to find affordable and secure housing for households, unchanged living conditions and long wait times led to disappointment. For others, negative experiences with staff and/or volunteers and seemingly unwelcoming environments meant people stopped visiting certain organisations. We hope to highlight here how such experiences demonstrate that the current housing crisis experienced in Bridgewater and other regions is much too big for the community sector to solve on its own, as expressed through the following quote:

"There's no availabilities for the services I need. I can go to work and I can make as much money as I want, but it still doesn't change the fact that I have nowhere to live." (Bennett, precariously housed, 35-64 years)

In finding support at the government-level, participants told us about the programs that helped them navigate challenges related to energy and housing. Some participants had received aid through grants and programs like Energize Bridgewater and Efficiency Nova Scotia to subsidize home energy retrofits, mostly targeted at homeowners. Daniel and Charlotte received a new door and windows through Efficiency Nova Scotia whilst others had gotten their homes audited for energy efficiency. Oliver, who received a heat pump through Energize Bridgewater, said he could now afford to keep his home warm in the winter and cool in the summer.

Despite the impact that certain government programs could have in helping households facing energy poverty and housing insecurity, many participants felt abandoned by the federal, provincial, and local governments. Indeed, in sensing that the government did not understand what the challenges many households faced, Gwen and Elizabeth suggested: "I would like [higher up government workers] to live [...] in a place like this or to be homeless or live in an RV this winter and see how [they] will like it. It's not that the people are choosing this, this is what the government is doing." (Gwen, renter, 35-64 years & Elizabeth, renter, 65+ years)

Participants suggested there should be an active effort to increase the quantity of affordable, accessible, and diversified housing options in the region. As such, participants suggested to increase the construction of social housing buildings with units specifically for families and for people with disabilities, rent caps, and more regulations on landlords to limit the occurrences of housing discrimination, renovictions, and rent hikes. One participant noted the need for a shelter for individuals facing homelessness in the community. Additionally, some participants considered increasing the production of renewable energy in the region would have environmental and economic benefits. Overall. these discussions pointed to a collective desire to solve the issues around energy poverty and housing unaffordability and insecurity in Bridgewater.

"I would like [higher up government workers] to live [...] in a place like this or to be homeless or live in an RV this winter and see how [they] will like it. It's not that the people are choosing this, this is what the government is doing."

(Gwen, renter, 35-64 years & Elizabeth, renter, 65+ years)

Aspirations for the future

As a final theme, we highlight the hopes and aspirations participants expressed when discussing housing and energy security. Throughout the interview process, it was clear that participants were aware of their housing and energy needs, though often lacked the resources to meet them.

As a way to initiate this discussion, we asked participants to imagine a world where they could use as much energy as they needed while not having to pay for it. One participant expressed how far-fetched this reality seemed, saying: "That's almost like dreaming isn't it?" (Alice, renter, age not provided). When asked to imagine a future with their desired housing, participants focused on housing stability, affordability, and suitability for the household composition. For those who had experienced health issues, housing aspirations related to the need for healthy housing, which would be energy efficient, have good ventilation, and be free of mould and pests. Accessing housing that would accommodate the needs of families, and even allow the reunification of families was mentioned by many parents. One participant explained how she did not need a lot, she just wanted to avoid feeling stressed about energy and housing payments.

"I still wouldn't go crazy with it [energy use], even if I didn't have to pay for [housing and energy] like I still wanna be careful about the usage, but it would take off all the stress off me." (Gaby, renter, 35-64 years)

Indeed, the hopes and dreams of participants solely included things that would allow them to live in dignity and worry-free. No one mentioned dreams of living in mansions or using energy in excess. Rather, all spoke about being able to meet their needs without facing financial barriers or having the burden of juggling various bills.



"I still wouldn't go crazy with it [energy use], even if I didn't have to pay for [housing and energy] like I still wanna be careful about the usage, but it would take off all the stress off me." (Gaby, renter, 35-64 years)

Conclusion

Through this report, we summarized the lived experiences of energy poverty of 39 individuals living in and around the town of Bridgewater, Nova Scotia. Findings highlight how energy poverty and housing are closely intertwined, from the condition and energy efficiency of a home to the (un)affordability of energy and housing costs. Additionally, this report illustrates how living in energy poverty and other related hardships can negatively influences health and well-being and force households to resort to various coping strategies, including compromising on other necessities such as food. Across the interviews, participants highlighted important issues and inequalities surrounding housing and energy accessibility and security in their community. While interviewees revealed that there is a supportive base of organisations in the town that help households deal with certain hardships, there is a need for more governmental, social supports, and resources to effectively lessen the gap between those who can and cannot afford and attain energy and housing security. By ending this report with the aspirations and solutions proposed by participants, we hope to emphasize the need for collaboration to tackle these multifaceted challenges and encourage all of those committed to this work.

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Appendix 1.

Descriptive summary of sociodemographic characteristics of sample.

	Number of participants (n=)	Proportion (%)
Sociodemographic characteristics		
Age category		
19 to 34	10	25.6
35 to 64	18	46.2
65+	9	23.1
Not given	2	5.1
Gender		
Woman	29	74.4
Man	10	25.6
Highest attained level of education		1
Less than high school	12	30.8
High school diploma or equivalent	12	30.8
Post-secondary education	13	33.3
Not given	2	5.1
Annual household income (CAD)		1
No income	1	2.6
Less than \$20,000	19	48.7
\$20,000 to \$39,999	11	28.2
\$40,000 or more	8	20.6
Income source		
Government	30	76.9
Full-time or part-time employment	9	23.1

Appendix 2.

Descriptive summary of housing and energy-related information of sample.

	Number of participants (n=)	Proportion (%)	
Housing and household composition			
Tenure			
Owner	10	25.6	
Renter	20	53.8	
Precariously housed	9	20.5	
Dwelling type			
Single-detached house	29	48.7	
Apartment	10	43.6	
Mobile home		5.1	
Household composition			
Couple without dependants	10	25.6	
Couple with dependants	4	10.3	
Multigenerational or multi-family	11	28.2	
Lone-parent	2	5.1	
Living alone	12	30.8	
Energy-related information			
Energy system			
Electric	24	61.5	
Oil/propane	2	5.1	
More than one source	6	15.4	
Cost of energy (Monthly average, range, CAD)3			
Summer	\$285 (\$40 to \$1100)	76.9	
Winter	\$420 (\$90 to \$1100)	23.1	
Arrears to Nova Scotia Power or other energy providers			
Yes	11 (ranging from \$200-\$2000)	20.5	
Utilities included in rent			
Yes	6	15.4	

³ Averaged from the interviews of 25 participants in the summer and 24 participants in the winter who gave their energy costs.

















